

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>380400377WO1</b>	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. <b>PCT/JP2004/014939</b>	International filing date (day/month/year) <b>08.10.2004</b>	Priority date (day/month/year)	
International Patent Classification (IPC) or national classification and IPC <b>G06F12/14</b>			
Applicant <b>RENESAS TECHNOLOGY CORP.</b>			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <b>5</b> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:
<input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
<input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items:
<input checked="" type="checkbox"/> Box No. I Basis of the report
<input type="checkbox"/> Box No. II Priority
<input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI Certain documents cited
<input type="checkbox"/> Box No. VII Certain defects in the international application
<input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/014939

## Box No. I Basis of the report

1. With regard to the language, this report is based on:

the international application in the language in which it was filed

the translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of:

international search (Rule 12.3(a) and 23.1(b))

publication of the international application (Rule 12.4(a))

international preliminary examination (Rule 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished

the description:

pages \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the claims:

nos. \_\_\_\_\_ as originally filed/furnished

nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19

nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the drawings:

sheets \_\_\_\_\_ as originally filed/furnished

sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3.  The amendments have resulted in the cancellation of:

the description, pages \_\_\_\_\_

the claims, nos. \_\_\_\_\_

the drawings, sheets/figs \_\_\_\_\_

the sequence listing (*specify*): \_\_\_\_\_

any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages \_\_\_\_\_

the claims, nos. \_\_\_\_\_

the drawings, sheets/figs \_\_\_\_\_

the sequence listing (*specify*): \_\_\_\_\_

any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superceded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/JP2004/014939

Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

## 1. Statement

Novelty (N)	Claims	1-15	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-15	NO
Industrial applicability (IA)	Claims	1-15	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

Document 1: JP 2004-145605 A (Matsushita Electric Industrial Co., Ltd.), 20 May 2004, paragraphs [0008] to [0028], fig. 1, 2 and 4 (Family: none)

Document 1 discloses the following:

a feature wherein addresses a3 to a4 (which constitute the privileged area) are allocated to the instruction ROM (211), while addresses a7 to a8 are allocated to the RAM (212) (fig. 2 and paragraph [0016]);

a feature wherein the execution area determination circuit (214) outputs a signal (S2) indicating the privileged area in cases when the program counter value (S1) that corresponds to the instruction being processed in the decoding stage comes under addresses a3 to a4 (fig. 1 and 2, and paragraph [0020]);

a feature wherein the detection circuits (221 to 223) permit access to the memory (221 to 213) regardless of the access area or the type of access in cases when the operation mode is set to a privileged mode, while the detection circuits (221 to 223) deny access to the privileged areas of the memory (221 to 213) in cases when the operation mode is set to an API mode (fig. 1, 2 and

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4, and paragraph [0022]); and

a first embodiment whereby it is possible to protect the programs and the data in the privileged areas from the user programs (paragraph [0028]).

Therein, the privileged areas (a3 to a4 and a7 to a8) disclosed in document 1 correspond to the first protected memory area and the second protected memory area set forth in claim 1 of the present application. Furthermore, it would have been easy for a person skilled in the art to conceive of substituting flash memory for the instruction ROM of the invention disclosed in document 1, or of using the privileged area (a7 to a8) disclosed in document 1 as a working area.

Claims 1 to 6 do not involve an inventive step in the light of the disclosures in document 1.

It is common practice to protect data by prohibiting operations for erasing or rewriting flash memory. Such being the case, it would have been easy for a person skilled in the art to conceive of substituting flash memory for the instruction ROM (211) in the invention disclosed in document 1, applying the abovementioned technique, and providing a control unit for prohibiting reading operations and a control unit for prohibiting rewriting operations.

Claims 7 to 10 do not involve an inventive step in the light of the disclosures in document 1.

Claims 11 to 15 do not involve an inventive step in the light of the disclosures in document 1 for similar reasons to claims 1 to 10.

## Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1.

The technical content of claims 1, 2 and 11 is unclear in as much as said claims set forth a "second protected memory area wherein reading operations from areas of the aforementioned memory array other than the first protected memory area are prohibited," which suggests that a space called the first protected memory area carries out a reading operation.

2.

The feature set forth in claims 3 to 6 and 12 to 13, wherein the "value of the address signal and the value of the program counter are compared," is not explicitly disclosed in the description.